Section 2.4 Hazardous Materials

6-month Issues

6-HM-1 **Data Adequacy Deficiency –** Table 8.12-4 indicates that hydrogen will be stored in quantities exceeding 25,000 standard cubic feet. Please verify this information.

Data Adequacy Response – The CVEC project can store a maximum of 25,000 standard cubic feet of hydrogen, as required. Table 8.12-4 has been revised as Table 8.12-4R (attached) to show 131 pounds of hydrogen as the maximum quantity onsite. This storage limit should be sufficient for one refill of the Toshiba STG generator after CO_2 purging plus almost 2 weeks of generator leakage storage.

TABLE 8.12-4R
CVEC Chemical Inventory

Trade Name	Chemical Name	CAS Number	Maximum Quantity Onsite	CERCLA SARA RQ[a]	RQ of Material as Used Onsite[b]	LaFollette Bill TPQ[c]	Prop 65
Acutely Hazardous Materials							
Anhydrous Ammonia	Anhydrous Ammonia	7664-41-7 (NH_3)	24,000 gal.	100 lb.	100 lb.	500 lb.	No
Neutralizing Amines (e.g., NALCO 356)	Cyclohexylamine (20 to 40%)	108-91-8	800 gal.	10,000 lb.	25,000 lb.	10,000 lb.	No
	Morpholine (5 to 10%)	110-91-8		[d]	[d]	[d]	No
Sulfuric Acid	Sulfuric Acid (93%)	7664-93-9	16,000 gal.	1,000 lb.	1,075 lb.	1,000 lb.	No
Hazardous Materials							
Ammonium Bifluoride	Ammonium Bifluoride	1341-49-7	200 pounds initially and once every 3 to 5 years	100 lb.	100 lb.	[d]	No
Anti-Foam (e.g., NALCO 71 D5 ANTIFOAM)	Hydrotreated light distillate (10-20%)	6742-47-8	800 gal.	[d]	[d]	[d]	No
	n-Decanol (1-5%)	112-30-1		[d]	[d]	[d]	No
	n-Octanol (5-10%)	118-87-5		[d]	[d]	[d]	No
Antifreeze	Propylene Glycol	57-55-6	55 gal.	[d]	[d]	[d]	No
Calcium Sulfate	Calcium Sulfate	10101-41-4	4,000 lbs.	[d]	[d]	[d]	No
Chelating Agents	Ethylenediaminetetra-acetic acid (EDTA)	60-00-4	55 gal.	5,000 lb.	5,000 lb.	[d]	No
Citric Acid	Citric Acid	77-92-9	100 lb.	[d]	[d]	[d]	No
Cleaning Chemicals/Detergents	Various	None	100 gal.	[d]	[d]	[d]	No
Coagulant Aid Polymer (e.g., NALCO NALCOLYTE 8799)	Polyquaternary Amine	20507700000-5062P	800 gal.	[d]	[d]	[d]	No

TABLE 8.12-4R
CVEC Chemical Inventory

Trade Name	Chemical Name	CAS Number	Maximum Quantity Onsite	CERCLA SARA RQ[a]	RQ of Material as Used Onsite[b]	LaFollette Bill TPQ[c]	Prop 65
Diesel No. 2	Oil	None	500 gal.	42 gal.[e,f]	42 gal.[e,f]	[d]	Yes
Disodium Phosphate	Sodium Phosphate, Dibasic	7558-79-4	500 lb.	5,000 lb.	5,000 lb.	[d]	No
Filter Aid Polymer (e.g., NALCO NALCLEAR 7763)	Hydrotreated light distillate	64742-47-8	800 gal.	[d]	[d]	[d]	No
	Ethoxylated C10-16 Alcohols	68002-97-1		[d]	[d]	[d]	No
	Acrylic Polymer	20507700000-5027P		[d]	[d]	[d]	No
Formic Acid	Formic Acid	64-18-6	600 pounds prior to startup; 100 gals on a regular basis	5,000 lb.	5,000 lb.	[d]	No
Hexametaphosphate	Sodium Hexametaphospate	10124-56-8	500 lb.	[d]	[d]	[d]	No
Hydraulic Oil	Oil	None	1, 000 gal.	42 gal.[e,f]	42 gal.[e,f]	[d]	No
Hydrochloric Acid	Hydrochloric Acid (30%)	7647-01-0	10,000 pounds initially and once every 3 to 5 years; 55 gal. on a regular basis	5,000 lb.	16,667 lb.	[d]	No
Hydrogen	Hydrogen	1333-74-0	131 lb.	[d]	[d]	10, 000 lb.	No
Hydroxyacetic Acid	Gyrolic Acid	None	1000 pounds prior to startup; 100 gals on a regular basis	[d]	[d]	[d]	No

TABLE 8.12-4R
CVEC Chemical Inventory

Trade Name	Chemical Name	CAS Number	Maximum Quantity Onsite	CERCLA SARA RQ[a]	RQ of Material as Used Onsite[b]	LaFollette Bill TPQ[c]	Prop 65
Laboratory Reagents (liquid)	Various	None	10 gal.	[d]	[d]	[d]	No
Laboratory Reagents (solid)	Various	None	100 lb.	[d]	[d]	[d]	No
Lubrication Oil	Oil	None	30,000 gal.	42 gal.[e,f]	42 gal.[e,f]	[d]	Yes
Mineral Insulating Oil	Oil	8012-95-1	100,000 gal.	42 gal.[e,f]	42 gal.[e,f]	[d]	Yes
Non-Oxidizing Biocide (e.g., NALCO 7330)	5-Chloro-2-Methyl-4-Isothiazolin-3-one (1.1%)	26172-55-4	800 gal.	[d]	[d]	[d]	No
	2-Methyl-4-Isothiazolin-3-one (0.3%)	2682-20-4		[d]	[d]	[d]	No
Oxygen Scavenger (e.g., NALCO ELIMIN-OX)	Carbohydrazide	497-18-7	800 gal.	[d]	[d]	[d]	No
Phosphonate (e.g., NALCO 7385)	2-Phosphono-1,2,4-Butanetricarboxylic acid (45-50%)	37971-36-1	800 gal.	[d]	[d]	[d]	No
Scale Inhibitors (various)	Polyacrylate	Various	3,000 gal.	[d]	[d]	[d]	No
Sodium Bisulfite (e.g., NALCO 7408)	Sodium Bisulfite (40 to 70%)	7631-90-5	800 gal.	5,000 lb.	7,143 lb.	[d]	No
Sodium Bromide	Sodium Bromide	7647-15-6	2,000 gal.	[d]	[d]	[d]	No
Sodium Carbonate (Soda Ash)	Sodium Carbonate	497-19-8	50 tons	[d]	[d]	[d]	No
Sodium Hydroxide	Sodium Hydroxide (50%)	1310-73-2	8,000 gal.	1,000 lb.	2,000 lb.	[d]	No
Sodium Hypochlorite (Bleach)	Sodium Hypochlorite (10%)	7681-52-9	8,000 gal.	100 lb.	1,000 lb.	[d]	No

TABLE 8.12-4R
CVEC Chemical Inventory

Trade Name	Chemical Name	CAS Number	Maximum Quantity Onsite	CERCLA SARA RQ[a]	RQ of Material as Used Onsite[b]	LaFollette Bill TPQ[c]	Prop 65
Sodium Nitrate	Sodium Nitrate	7631-99-4	500 pounds initially and once every 3 to 5 years	[d]	[d]	[d]	No
Sodium Nitrite	Sodium Nitrite	7632-00-0	500 lb.	100 lb.	100 lb.	[d]	No
Sodium Sulfate	Sodium Sulfate	7757-82-6	4,000 lb.	[d]	[d]	[d]	No
Sodium Sulfite	Sodium Sulfite	7757-83-7	800 gal.	[d]	[d]	[d]	No
Stabilized Bromine (NALCO STABREX ST70)	Sodium Hydroxide (1 to 5%) Sodium Hypobromite (10 to 50%)	1310-73-2 13824-96-9	2,000 gal.	1,000 lb. [d]	20,000 lb. [d]	[d]	No No
Sulfur Hexafluoride	Sulfur Hexafluoride	2551-62-4	200 lb.	[d]	[d]	[d]	No
Trisodium Phosphate	Sodium Phosphate, Tribasic	7601-54-9	500 lb.	5,000 lb.	5,000 lb.	[d]	No

[a] Reportable quantity for a pure chemical, per the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) [Ref. 40 CFR 302, Table 302.4]. Release equal to or greater than RQ must be reported. Under California law, any amount that has a realistic potential to adversely affect the environment or human health or safety must be reported.

[b] Reportable quantity for materials as used onsite. Since some of the hazardous materials are mixtures that contain only a percentage of a reportable chemical, the reportable quantity of the mixture can be different than for a pure chemical. For example, if a material only contains 10% of a reportable chemical and the RQ is 100 lbs., the reportable quantity for that material would be (100 lbs.)/(10%) = 1,000 lbs.

[c] Threshold Planning Quantity [Ref. 40 CFR Part 355, Appendix A]. If quantities of extremely hazardous materials equal to or greater than TPQ are handled or stored, they must be registered with the local Administering Agency.

[d] No reporting requirement. Chemical has no listed RQ or TPQ.

[e] State reportable quantity for oil spills that will reach California state waters [Ref. CA Water Code Section 13272(f)]

[f] Per the California Water Quality Control Board Region 5, they would like all oil spills to surface water reported, even if they are less than the state reportable quantity of 42 gallons.